

STANDARD OPERATING PROCEDURE

Calculation of the 24-hour average concentration of Vinyl Chloride leaving the Stripping System in ppm on a Dry Resin Basis

The calculation is as follows:

$$A = \sum_{i=1}^K \left[\frac{\sum_{j=1}^L \left[P_{jG_i} M_{jG_i} + F_{jG_i} C_{jG_i} \right]}{Q_T L} \right]$$

UCC 101797

Where:

- A = 24-hour average concentration of Vinyl Chloride leaving the stripping system in ppm on a dry resin basis.
- T = Type T resin means resin produced by the solvent process.
- K = Total number of grades of resin produced during the 24-hour period.
- L = Total number of times that samples were taken during the production of the grade resin in the 24-hour period.
- G = Grade of resin e.g., G, G₂.
- P = Flow rate of stripped varnish to the field storage tanks lb/hour.
- M = Concentration of Vinyl Chloride in the stripped varnish sample in ppm.
- F = Flow rate of the rectifying column tails to solvent recover in lb/hour.
- C = Concentration of Vinyl Chloride in the rectifying column tails going to solvent recovery in ppm.
- Q_T = Total production of type T resin over the 24-hour period.

P = is calculated using this formula:

$$P = T + A + E - (V + S + B + D)$$

Where:

- T = Total autoclave feeds in lb/hour.
- A = Acetone flow to the acetone vaporizer in lb/hour.
- V = Vinyl Chloride make in lb/hour.
- S = Acetone to solvents in lb/hour.
- B = Acetone to B-3 in lb/hour.
- D = Acetone from rectifying column tails to dilution tank in lb/hour.
- E = Acetone from 2708 tank to dilution tank in lb/hour.

Q_T is calculated using this formula:

$$\left[\sum_{i=1}^K \left[\frac{\sum_{j=1}^L [P_j R_{ij}] }{L} \right] \right]$$

Where:

R = Percent total solids in the stripped varnish as a weight percent.

UCC 101799

bc: Mr. T. D. Epps*
 Mr. J. F. Erdmann
 Mr. C. E. Fry
 Mr. R. E. George
 Mr. M. E. Griffith
 Mr. R. T. Kramer*
 Mr. R. J. Murawski
 Mr. G. G. Weissert
 Mr. R. N. Wheeler, Jr.

Note to bc recipients: Resin A is VYLF
 Resin B is VMCA
 Resin C is VROH
 Resin D is VYHG
 Resin E is VYHG

*Circulated Copies

UCC 101800